

REMARKS

In the Office Action mailed August 24, 2005, Claims 1-13, 15, and 17-22 were pending for consideration. All of the claims were rejected on various statutory grounds, each of which is addressed in turn below.

By the present amendment, Claims 5, 9, and 20 have been amended to correct a spelling and antecedent basis issues. As such, the Applicant submits that this amendment is not a narrowing amendment and that no new matter is added thereby. Accordingly, Claims 1-13, 15, and 17-22 remain pending in the present application. The Applicant respectfully submits that the present claims are allowable over the cited references.

Claim and Specification Objections:

Claim 20 was objected to because of a misspelling of the word “essentially.” The claim has been amended to the correct spelling.

35 U.S.C. 112, Second Paragraph Rejections:

Claims 5-9, 11-13, 15, and 17-22 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Specifically, the Examiner has rejected claim 5 as lacking antecedent basis for the term “each side.” Additionally, the Examiner has rejected Claim 9 as lacking antecedent basis for the term “each matrix layer.” Claim 5 has been amended to provide antecedent basis for the term “each side.” Support for this amendment can be found on page 40, lines 6-19 of the specification as files, and from FIG. 17. Claim 9 has been amended to maintain consistent verbiage by using the term “support layer” rather than “matrix layer.” Support for this

amendment can be found in Claim 9. These amendments have rendered the antecedent basis rejections moot. Reconsideration is respectfully requested.

35 U.S.C. § 102 Rejections:

The Examiner has rejected claims 1 and 2 under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 3,049,843 (hereinafter “Christensen”). Christensen teaches a cutting device having cutting elements bonded to the peripheral region of a supporting disk (column 1, lines 12-19). The cutting elements are fitted into slots cut into the circular disk along the cutting edge, as can be seen in FIG. 10.

Independent Claim 1 of the present application contains a limitation to, *inter alia*, a blade member having a concave cutting edge. A non-limiting example of a concave cutting edge can be seen in FIG. 15 of the present application. In this embodiment, the blade member 222 has a concave cutting edge 230. Additionally, Claim 1 recites that what is being claimed is a reciprocating frame saw blade. Though this recitation is in the preamble, MPEP § 2111.02 states that “[a]ny terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation.” The terminology “reciprocating frame saw” limits the structure of the blade and therefore must be treated as a claim limitation.

As such, Christensen does not teach each and every element of Claim 1. The circular cutting device of Christensen clearly has a convex cutting edge as can be seen in FIG. 10. Additionally, the cutting device of Christensen has a circular cutting blade, not a reciprocating frame saw blade as required by Claim 1.

Accordingly, the Applicant respectfully requests that this rejection of Claim 1 be withdrawn. Also, Claim 2 is dependent from Claim 1 and is thus narrower in scope. As such, Claim 2 will not be discussed in detail, and it is assumed that it is allowable along with Claim 1.

The Examiner has also rejected Claims 1-3 under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 4,920,947 (hereinafter "Scott"). Scott teaches a chainsaw for cutting aggregate material (abstract). The chainsaw includes a series of links having a cutting block bonded thereto, with the links riding on the guide bar (column 4, lines 49-55; column 5, lines 11-15; FIGs. 1 and 2). Additionally, the guide bar (26) has substantially straight bottom and top guide edges (column 5, lines 1-2). The bottom edges (50) of the side links that support the cutting blocks ride along a bearing strip (60) bonded along the straight top portion of the guide bar (26) (column 5, lines 12-16; FIGs. 2 and 3). Note that FIG. 3 shows the close interaction of the link (42) supporting the cutting block (44) and the straight edge of the bearing strip (60).

As has been discussed above, Claim 1 of the present application contains a limitation to reciprocating blade member having a concave cutting edge. Scott does not teach or suggest a reciprocating blade member, nor does it teach or suggest a blade member having a concave cutting edge. Scott teaches a chainsaw blade that cuts in a single direction, as indicated by the arrows in FIG. 1. Though Scott does teach that the chainsaw blade can cut in either direction by simply changing the direction of the cutting chain (column 4, lines 29-34), this is not a reciprocating cutting action. Additionally, because the bottom edges of the side links that support the cutting blocks ride along the bearing strip which is substantially straight, Scott does not teach a blade member that is concave.

Scott does not teach or suggest each and every limitation of Claim 1, namely, a blade member that is 1) reciprocating, and 2) concave. Accordingly, the Applicant respectfully requests that this rejection of Claim 1 be withdrawn. Also, Claims 2-3 are dependent from Claim 1 and are thus narrower in scope. As such, Claims 2-3 will not be discussed in detail, and it is assumed that they are allowable along with Claim 1.

The Examiner has also rejected claims 1, 2, 4-7, 9, 10, 17, and 20 under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 3,028,710 (hereinafter "Pratt"). Pratt teaches an abrasive cut-off disk or wheel having a plurality of circumferentially spaced arcuate cutting segments secured around its periphery (column 1, lines 8-12). Fig. 3 shows a cutting segment 15 having a base 19 which couples to the circular wheel 11. The cutting edge 21 of the cutting segment 15 has a convex shape, as can be seen in Fig. 3. Additionally, the cutting segments 15 are coupled to a circular wheel 11, which is a convex surface.

The Examiner has argued that Pratt discloses a reciprocating frame saw blade comprising a blade member having a concave cutting edge and a plurality of superabrasive tool segments brazed along the cutting edge. The Applicant respectfully disagrees. Pratt discloses a circular saw blade, not a frame saw blade. Additionally, such a blade does not cut with a reciprocating action, and its cutting edge is convex, not concave. Column 2, lines 34-39 does indicate that a superior cutting action can be obtained when the wheel is made to wear from the center so that the outer edge 21 of the wheel is concave with respect to the surface being cut. Looking at FIG. 4, however, it is evident that the outer edge 21 is concave in the direction of the width of the tool. Additionally, this concavity is in the cutting segments 15 containing the diamond particles, not in the blade member as required in Claim 1. In Claim 1, the limitation of a concave cutting edge is

on the blade member, not the superabrasive tool segments. As such, Pratt does not teach or suggest each and every limitation of Claim 1.

The Examiner has also argued that Pratt teaches a plurality of tool segments that are brazed along at least a portion of each side of the blade member. The Applicant respectfully disagrees with this assertion. Claim 5 requires that a blade member have a superabrasive tool segment brazed along a cutting edge and at least a portion of each side. In FIGs. 4, 5, and 6 of Pratt, elements 27, 27', 29, 29', 31, and 31' all contain diamond particles (column 2, lines 45-72) and are thus part of the cutting member. FIGs. 4, 5, and 6 of Pratt do not show the blade member 11 coupling to the cutting segments. It is clear from FIG. 2, however, that the "sandwiched" layers of diamond particles (27, 27', 29, 29', 31, and 31') comprising the cutting segments 15 couple to the edge of the blade member 11 but do not extend onto the sides. Note that the "sandwich" described at column 2, lines 66-72 refers to a sandwich of diamond containing layers of the cutting segment 15, not a sandwich of diamond containing layers and the blade member 11. As such, Pratt does not teach each and every limitation of Claim 5, namely superabrasive tool segments brazed along an edge and at least two sides of a blade member.

Independent Claim 10 will not be discussed, as it was not addressed in the Office Action.

Accordingly, the Applicant respectfully requests that the rejections of independent Claims 1, 5, and 10 be withdrawn. Also, Claims 2-4, 6-9, 11-13, 15, and 17-22 are dependent claims and are thus narrower in scope than the claims from which they depend. As such, they will not be discussed in detail, and it is assumed that they are allowable along with the independent claims from which they depend.

35 U.S.C. § 103 Rejections:

The Examiner has rejected Claims 8, 12, 13, 18, 19, and 21 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Pratt. As the Examiner has not rejected any of the independent claims as obvious, it is the Applicant's position that the dependent claims would thus not be obvious in light of the cited reference. It is also the Applicant's position that the differences between the teachings of Pratt and the present claims are so vast, that one of ordinary skill in the art would have neither the suggestion nor the motivation to modify Pratt to arrive at the present claims. Specifically, nothing in Pratt suggests a reciprocating frame saw blade having a concave cutting edge, as required by the claims and as described above. As such, it is the Applicant's position that a *prima facie* case of obviousness has not been established by the Examiner. Because Claims 8, 12, 13, 18, 19, and 21 depend from the independent claims and are thus narrower in scope, they will not be discussed in detail, and are assumed to be allowable along with the independent claims from which they depend. The Applicant respectfully requests that these rejections be withdrawn.

The Examiner has also rejected Claims 11, 15, and 22 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Pratt in view of either U.S. Patent No. 4,916,869 (hereinafter "Oliver") or U.S. Patent No. 6,817,936 (hereinafter "Skeem"). As with the previous obviousness rejection, none of the independent claims from which these claims depend have been rejected as obvious. As such, these dependent claims can not be deemed as obvious. In addition to the reasoning provided above, Pratt in combination with either Oliver or Skeem does not provides the missing suggestion or motivation for a reciprocating frame saw blade having a concave cutting edge as described. The Applicant respectfully asserts that the Examiner has not established a *prima facie* case of obviousness with respect to these claims. Because Claims 11,

15, and 22 depend from independent Claims 1, 5, and 10, and are thus narrower in scope, they will also not be discussed in detail, and it is assumed that they are allowable along with these independent claims. Reconsideration is respectfully requested.

Accordingly, Claims 1-13, 15, and 17-22 remain pending in the present application. In view of the amendments and remarks herein, the Applicant respectfully submit that the present claims are allowable over the Christensen, Scott, Pratt, Oliver, and Skeem references, and requests that the rejections be withdrawn and that the claims be allowed to issue.

CONCLUSION

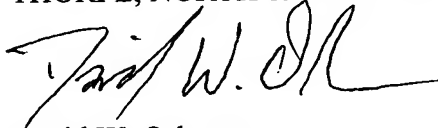
In view of the foregoing, the Applicant believes that Claims 1-13, 15, and 17-22 present allowable subject matter and the prompt allowance thereof is requested. If any impediment to the allowance of these claims remains after consideration of the present amendment and above remarks, and such impediment could be removed during a telephone interview, the Examiner is invited to telephone the undersigned attorney, so that such issues may be resolved as expeditiously as possible.

Please charge any additional fees except for Issue Fee or credit any overpayment to Deposit Account No. 20-0100.

Dated this 27th day of December, 2005.

Respectfully submitted,

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